

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method of scheduling a future event comprising:
receiving a first event data including a first time at which a first event is to occur;
creating a first data structure associated with said first event, said first data structure comprising a plurality of elements corresponding to a plurality of time windows of a first duration, comprising a first element associated with a first start time and a first end time and a second element associated with a second start time and a second end time;
associating said first event with ~~a one~~ said first element of said first data structure ~~elements, said first time falling within the said first start time and said first end time window corresponding to said one of said first data structure elements;~~
receiving a second event data including a second time at which a second event is to occur, said second time not ~~being in any time window represented by an element falling within said first start time and said second end time of said first data structure;~~
creating a second data structure for storing said second event data, said second data structure comprising a plurality of elements third element associated with a third start time and a third end time corresponding to a plurality of time windows of a second duration; and
associating said second event with ~~a one~~ said third element of said second data structure ~~elements, said second time falling within the said third start time and said third end time window corresponding to said one of said second data structure elements.~~
2. (Original) The method of scheduling a future event of claim 1, wherein said first data structure comprises an array.
3. (Original) The method of scheduling a future event of claim 1, wherein said second data structure comprises an array.
4. (Currently Amended) The method of claim 1, further comprising:

associating said second event with a said second one element of said first data structure ~~elements~~.

5. (Currently Amended) The method of claim 4, wherein said act of associating said second event with a said second one element of said first data structure elements occurs after said second end time. ~~all time windows represented by said first data structure have expired.~~

6. (Currently Amended) The method of claim 1, wherein said second ~~duration~~ end time is greater than said first end time. ~~duration.~~

7. (Currently Amended) The method of claim 6, wherein said first data structure comprises a plurality of elements corresponding to a plurality of time windows of a first duration and wherein a period of time represented by said third start time to said third end time ~~each time window of said second duration~~ comprises a period of time represented by the aggregate of all time windows in said first data structure.

8. (Currently Amended) The method of claim 1, wherein ~~each of said first data structure elements~~ said first element comprises a list pointer, and wherein said associating act comprises:

adding to a list associated with said first element ~~one of said first data structure elements~~ a list element indicative of said first event.

9. (Currently Amended) The method of claim 8, wherein said ~~linked~~ list pointer comprises an empty list.

10. (Original) The method of claim 8, wherein said list comprises a doubly linked list.

11. (Currently Amended) The method of claim 1, further comprising the act of: initiating the events associated with a said first one of said elements; and

repeating said initiating act for events associated with successive ones of said second elements at a pre-determined time interval.

12. (Currently Amended) The method of claim 11, wherein said pre-determined time interval is a period of time from said first start time to said first end time, said first duration.

13. (Currently Amended) The method of claim 1, wherein said first data structure comprises an array in which said first data structure elements are arranged in an order, and wherein said method further comprising the acts of:

setting a pointer to point to a said first one element of said first data structure elements, said first element comprising a beginning element in said array;

repeatedly advancing said pointer to a next element ~~successive ones~~ of said first data structure elements at a pre-determined time interval.

14. (Currently Amended) The method of claim 13, wherein said advancing act comprises:

wrapping said pointer to the a-beginning element in said order.

15. (Original) A computer-readable medium having computer-executable instructions to perform the method of claim 1.

16. (Currently Amended) A system for scheduling future events comprising:
a first data structure comprising a plurality of elements, each of ~~ssid elements~~ the plurality of elements of the first data structure associated with a period of time defined by a start time and an end time, the plurality of elements of the first data structure comprising a first element associated with a first start time and a first end time and a second element associated with a second start time and a second end time;

a second data structure associated with the first element, the second data structure for storing a plurality of event data for events to be executed between the first start time and the first end time; and

a scheduling module which receives a first event data including a first event time at which an a first event is to occur, and which associates stores said first event data in said second data structure, said first event time being within said first start time and said first end time, with a one of said elements, said time being within the time window corresponding to said one of said elements.

17. (Original) The system of claim 16, wherein said first data structure comprises an array.

18. (Currently Amended) The system of claim 16, wherein each of said plurality of elements of said first data structure comprises a list pointer, and wherein said scheduling module adds said plurality of event data to a list pointed to by said ~~one of said~~ first elements.

19. (Original) The system of claim 16, wherein said list comprises a linked list.

20. (Currently Amended) The system of claim 16, further comprising:
a ~~second~~third data structure which corresponds to a time duration subsequent to ~~any of the time windows corresponding to the elements of said first data structure~~said first end time and said second end time;

wherein said scheduling module receives a second event data including a second time at which a second event is to occur and associates said second event data with said ~~second~~third data structure, said second time not being falling within any of the time windows corresponding to the elements of said first data structuresaid period of time defined by said start time and said end time.